6.10 Agriculture and Soils

6.10.1 Introduction

Riverside Public Utilities (RPU) proposes to build and operate a nominal 96-megawatt (MW) simple-cycle power plant on a 12-acre fenced site within the City of Riverside, California. This proposed facility is referred to as the Riverside Energy Resource Center (RERC) Project (Project). RPU will develop, build, own and operate the facility. RERC will supply the internal needs of the City of Riverside during summer peak electrical demands and will serve the City's minimum emergency loads in the event RPU is islanded from the external transmission system. No power from RERC will be exported outside of the city.

The RERC Project site is located at the northern terminus of Acorn Street in the City of Riverside, Riverside County, California. The Project would also require rebuilding a transmission line approximately 1.75 miles long. This section is evaluates the potential for Project impacts to agriculture and soil resources during construction and operation. This document presents a summary of relevant laws, ordinances, regulations and standards (LORS), the Project's setting, potential environmental impacts and proposed mitigation measures affecting agricultural and soil resources. Required permits and permitting agencies are also identified.

6.10.1.1 Project Description

The proposed site is owned by the City of Riverside and is located adjacent to the City of Riverside's Wastewater Treatment Plant (WWTP) in a light industrial/manufacturing area. The RERC will consist of two aero-derivative combustion turbine generators with SCRs, an on-site substation, approximately 1.75 miles of 69kV transmission line, natural gas and water supply interconnection, and on-site administration building and warehouse. The power plant and associated administration building and warehouse will occupy approximately 8 of 12 acres with the additional 4 acres reserved for equipment storage and construction parking. The entire plant perimeter will be fenced with a combination of chain-link fencing and architectural block walls.

6.10.2 Laws, Ordinances, Regulations and Standards

LORS applicable to agricultural and soil resources are summarized in Table 6.10-1

Table 6.10-1 Laws, Ordinances, Regulations and Standards - Agriculture

Jurisdiction	Authority	Administering Agency	Compliance
Federal	Federal Water Pollution Control Act of 1972 and the Clean Water Act of 1977 (including 1987 amendments)	Santa Ana Regional Water Quality Control Board	Establishes requirements for activities that would affect beneficial uses of waters of the U.S.

Jurisdiction	Authority	Administering Agency	Compliance
Federal	U.S. Department of Agriculture, Natural Resources Conservation Service, National Engineering Handbook	Natural Resources Conservation Service	Guidance providing standards for soils conservation during planning, Design and construction activities
State	Porter-Cologne Water Quality Control Act of 1972, California Water Code, California Code of Regulations, Title 23, Sections 13000 et seq.		Protection of water quality by appropriate design, sizing and construction of erosion and sediment controls
City	California Land Conservation Act of 1965 (Williamson Act)	City of Riverside	Voluntary tax incentive program to preserve agricultural and open space land
City	City of Riverside General Plan, Resources Element	City of Riverside	Protection of soils resources and agricultural properties
City	City of Riverside Municipal Code, Chapter 17.16 Grading Permit Application Requirements	City of Riverside	Requirements for grading permit

6.10.3 Setting

6.10.3.1 Regional Setting

The RERC Project is located east of the Los Angeles Basin in the northern end of the Peninsular Ranges geomorphic province. This province is characterized by the presence of numerous, northwestern trending, small mountain ranges and intervening plains and valleys. The ranges are generally subparallel to faults branching from the San Andreas Fault. Soils typically encountered include Alfisols, Entisols, Incep0tisols, Mollisols and Vertisols that formed in a warm, dry climate. The Peninsular Ranges are bounded on the northeast by the Transverse Ranges and on the southeast by the Colorado Desert.

The Project site and vicinity have been significantly affected by urbanization. Much of the area in the vicinity of the Project site was historically used to produce agricultural crops. The process of urbanization continues to shift land use patterns away from agricultural activities. No active commercial agriculture was identified on or adjacent to the Project site or transmission line alignment based on-site investigation and aerial photography review.

6.10.3.2 Local Setting

Native soil materials have been removed from the Project site. Up to approximately 25 feet of material has been excavated and removed. The excavated material has been used at the Tequesquite landfill. The current site surface consists primarily of a thin layer of fill material. Quartz diorite bedrock outcrops along with loose boulders occupy approximately 10 percent of the site surface. The fill material consists primarily of silty

sands that are light brown, dry and loose. Fill material is typically 1.5 feet thick. Below the fill material is slightly to moderately weathered quartz diorite bedrock. No agricultural activities were observed on or adjacent to the Project site.

The proposed transmission line alignment would parallel Payton Street south approximately 1,300 feet to its intersection with Jurupa Avenue. The proposed alignment would parallel Jurupa Avenue to the east approximately 8,000 feet then follow a railroad right of way southeast approximately 600 feet to the Mountain View Substation. Soil resources along the proposed alignment have largely been disturbed by urban and suburban development. No agricultural activities were observed along the proposed alignment.

According to the Soil Survey of Western Riverside Area California (NRCS, 1971) there were three soils mapping units present on the Project site. These mapping units were:

- Buchneau loam, slightly saline-alkali, 2 to 8 percent slopes (map symbol BhC). Buchneau soils are moderately well drained, loamy soils on alluvial fans. These soils developed on mixed alluvium and are underlain by a platy calcareous hardpan.
- Fallbrook sandy loam, shallow, 15 to 35 percent slopes, eroded (map symbol FbF2). Fallbrook soils are well-drained, loamy soils on uplands. These soils developed on granodiorite and tonalite.
- Terrace escarpments (map symbol TeG). Terrace escarpments consist of unaltered, variable alluvium outwash on terraces or barrancas. These areas have various soil profiles that are typically truncated.

Soil mapping units encountered along the transmission line rebuild include:

- Buchneau loam (map symbol BhC). See description above.
- Buchneau loam, slightly saline-alkali, 0 to 2 percent slopes (map symbol BhA). These soils are similar to map symbol BhC with exception of more moderate slope.
- Fallbrook sandy loam, 8 to 15 percent slopes, eroded (map symbol FaD2). These soils are similar to map symbol FbF2 with exception of more moderate slope and deeper profile.
- Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded (map symbol FfC2). These soils are similar to map symbol FbF2 with exception of more moderate slope, finer texture and deeper profile.
- Hanford coarse sandy loam, 2 to 8 percent slopes (map symbol HcC). Hanford soils consist of well to excessively drained coarse loamy soils on alluvial fans.

- Porterville clay, moderately deep, slightly saline-alkali, 0 to 5 percent slopes. Porterville soils are well drained clay soils on alluvial fans. These soils developed in very fine, basic igneous alluvium.

NRCS data indicate that soils delineated as map symbol HcC would be prime farmland if irrigated. Prime farmland status does not apply to these soils encountered by the Project for two reasons. First, no irrigation has been observed in the Project vicinity. Second, urban and suburban development has eliminated or significantly affected these soils.

NRCS data indicate that several soils would be Statewide Important Farmland if they were in tact. These include map symbols BhA, BhC, FaD2, FfC2 and PtB. These soils encountered by the Project would not be Statewide Important Farmland because urban and suburban development has eliminated or significantly affected these soils.

California Division of Land Resource Protection Farmland Mapping and Monitoring Program maps indicate that the Project would not affect Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. One parcel of land designated as Unique Farmland occurs near the Project. It is 23.9 acres in size and is located approximately 0.5 miles east of the RERC Project site and 0.25 miles north of Jurupa Avenue. Proposed Project activities would not affect this parcel of land.

The City of Riverside has indicated that a portion of the proposed 12-acre plant site is designated by the city as farmland of local importance. This designation has no practical relevance due to the site's current highly disturbed condition. Native soil materials have been removed from the proposed plant site.

6.10.4 Impacts

The construction and operation of the proposed facility would not result in significant impacts to soil resources. Native soils have essentially been eliminated from the RERC Project site due to past excavation activities. Soil resources associated with the transmission line rebuild have been significantly affected by urban and suburban development. The transmission line alignment is within disturbed areas associated with existing roadways, housing developments and a railroad.

Impacts related to erosion resulting from construction activities may occur. Surface disturbance would likely result in some increase to wind and water erosion rates. Effective implementation of Best Management Practices (BMP's) would minimize potential impacts related to erosion and subsequent sedimentation.

Operation of the proposed RERC facility would not result significant impact to soil resources. Access roads, parking lots and similar areas will be paved or covered with crushed rock. Landscaping will also contribute to the stability of the facility surroundings during operation. Emissions from the proposed facility are not expected to impact soils resources in the Project vicinity. Highly sensitive areas, such as serpentine material derive soils and their associated unique plant communities, have not been identified in the

Project vicinity. Table 6.10-2 shows the results of the CEQA Environmental Checklist for soils.

Table 6.10-2 CEQA Environmental Checklist - Soils

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Soils – Would the Project:				
Convert to non-agricultural use the Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps for the Farmland Mapping and Monitoring Program by the California Resources Agency?				X
Conflict with existing zoning for Agricultural use, or a Williamson Act contract?				X
Involve other changes in the existing environment which, due to their location or nature, could result conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?				X
Impact jurisdictional wetlands?				X
Result in substantial soils erosion?		X		
Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code **(1994)**, creating substantial risks to life or property?				X
Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

6.10.5 Mitigation

Please refer to the Storm Water Pollution Prevention Plan (SWPPP) prepared for the Project to identify specific BMP's for implementation. These BMP's will minimize erosion and sedimentation by:

- Minimizing disturbance to protective soil covers
- Treating disturbed, soil storage and similar areas with dust suppressants, windbreaks or water to reduce wind erosion and subsequent emissions as appropriate
- Stabilizing disturbed, soil storage and similar areas. Stabilization techniques would include but not be limited to mulching, revegetation and erosion control matting.
- Properly maintaining access roads, parking lots and similar areas
- Controlling site runoff by employing temporary drains, swales and diversions to direct water to sediment basins or traps.

- Employing sediment trapping and filtering measures such as silt fence, sand bag dikes and catchments.

Effective implementation of the mitigation measures discussed above would reduce any reasonably foreseeable direct, indirect, or cumulative adverse impacts to an insignificant level.

6.10.6 Permits Required

The City of Riverside would require a grading permit if project development activities result in moving more than 50 yards of material.

6.10.7 Agency Contacts

Peter Fahnestock Natural Resources Conservation Service
Victorville Service Center
17330 Bear Valley Road Suite 106
Victorville, CA 92392

6.10.8 References

U.S. Department of Agriculture. Natural Resources Conservation Service, November 1971. Soil Survey Western Riverside Area California.

U.S. Department of Agriculture. Natural Resources Conservation Service, May 1993. Prime Farmland and Statewide Important Farmland for Western Riverside County.

U.S. Department of Agriculture. Natural Resources Conservation Service. Soil Survey Division. Official Series Descriptions [online WWW]. Available URL: http://.ortho.ftw.nrcs.usda.gov/osd [Accessed 3/4/04]

California Department of Conservation. Farmland Mapping and Monitoring Program. [online WWW]. Available URL: http://www.consrv.ca.gov/DLRP/fmmp

California Department of Conservation. Farmland Mapping and Monitoring Program, August 1995. Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, Riverside County.

U.S. Department of the Interior Geological Survey. 1967 (photorevised 1980). Riverside West Quadrangle. 7.5 Minute Topographic Series.

Personal Communications. February 2004. Steve Hayes, City Planner, City of Riverside.